AUG 13 1935

STATISTICAL BULLETIN

METROPOLITAN LIFE INSURANCE COMPANY

VOLUME 16 JULY · 1935 NUMBER 7

Rural versus Urban Longevity

THE rural dweller, in the United States, has, on an average, four or five years longer life than the urban resident. That is the result emerging from a set of life tables just completed by the Statistical Bureau of the Metropolitan Life Insurance Company, relating to the white population of the United States in 1930, classified according to residence in urban or in rural sections. At birth, a white male has an expectation of life of 56.73 years if an urban resident, and of 62.09 years if dwelling in a rural section. The corresponding figures for a white female are 61.05 and 65.09. At other ages corresponding differences between the urban and rural populations are found as set forth in Table 1, which also exhibits, for comparison, urban and rural data according to the earlier life tables of 1901 and 1910.

While the figures cited are not adjusted for deaths of rural inhabitants who die in city hospitals, a factor for which it is difficult to make proper allowance, there can be no doubt that broadly speaking the figures are characteristic of urban and rural longevity respectively. We have had occasion in previous issues, when publishing figures on the expectation of life in a number of separate States, to note the fact that mortality tended to run in direct relation to the degree of industrialization. It is of interest to examine this matter further in the light of a more complete set of life tables for separate States, which have in the meantime become available. Table 2, on page 3, sets forth the expectation of life at birth according to the mortality of 1929-1931 of white males and white females, respectively, for all the States of the Union, except Texas. The table also shows the percent of white males of age ten and over engaged in manufacturing and mechanical industries. This may be regarded as a measure of the degree of industrialization, and, indirectly, of urbanization, of the several States. The table shows the States arranged in order of rank as regards the expectation of life for white males. The States with outstandingly high expectation of life are at once recognized as typically agricultural, while the typically industrial States are uniformly below average or at most only a little above it (see Table 2,

TABLE 1

Expectation of Life and Mortality Rates per 1,000 at Specified Ages for White Persons, by Sex. Urban and Rural Areas of the United States in 1901, 1910*, 1930†.*

AREA; COLOR; SEX; YEAR	AGE									
	0	10	20	30	40	50	60	70	80	90
	EXPECTATION OF LIFE									
Urban White Males:										
1930	56.73	53.08	44.20	35.65	27.33	19.78	13.44	8.50	5.01	2.83
1910	47.32	49.13	40.51	32.61	25.32	18.59	12.68	8.14	4.91	3.03
1901	43.97	47.49	39.13	31.89	25.06	18.56	12.80	8.20	4.78	2.68
Rural White Males:										
1930	62.09	57.38	48.32	39.88	31.47	23.39	15.98	9.88	5.57	2.97
1910	55.06	54.53	45.92	38.10	30.20	22.43	15.23	9.36	5.20	2.96
1901	54.03	54.36	45.97	38.37	30.52	22.78	15.54	9.56	5.23	2.89
Urban White Females:										
1930	61.05	56.44	47.35	38.78	30.34	22.40	15.37	9.70	5.65	3.29
1910	51.39	52.22	43.51	35.52	27.88	20.53	14.04	8.99	5.31	3.11
1901	47.90	50.29	41.86	34.45	27.30	20.28	14.05	8.97	5.25	3.02
Rural White Females:										
1930	65.09	59.58	50.37	41.77	33.19	24.77	16.98	10.43	5.82	3.14
1910	57.35	55.54	46.86	39.05	31.15	23.27	15.93	9.76	5.40	2.94
1901	55.41	54.42	46.09	38.80	31.23	23.54	16.30	10.10	5.66	3.04
	MORTALITY RATES PER 1,000									
Urban White Males:										
1930	69.94	1.86	3.24	4.16	7.58	15.55	33.14	67.96	140.84	258.52
1910	133.80	2.59	4.93	7.22	12.10	19.17	38.51	74.20	145.88	256.62
1901	150.97	2.97	6.29	9.47	13.54	20.31	38.15	73.08	146.45	279.06
Rural White Males:										
1930	55.37	1.09	2.98	3.97	5.46	9.60	20.27	48.98	117.56	244.94
1910	103.26	2.07	4.83	5.39	7.06	10.65	22.91	52.93	129.68	254.25
1901	109.00	2.29	5.04	5.84	7.13	10.71	21.68	51.52	127.32	257.02
Urban White Females:										
1930	55.17	1.34	2.78	3.85	5.90	11.14	24.20	53.21	118.91	227.70
1910	111.23	2.23	4.10	6.33	8.83	14.44	30.65	63.50	130.21	244.72
1901	125.45	2.55	5.40	8.30	10.72	16.30	31.35	63.13	130.93	248.09
Rural White Females:										
1930	44.23	.83	2.52	3.40	4.42	7.48	16.59	42.75	110.09	233.16
1910	84.97	1.80	4.41	5.46	6.65	9.91	20.06	49.92	122.06	249.07
1901	89.79	2.12	5.50	6.80	7.47	10.39	20.14	46.31	115.06	240.86

*Life tables for 1901 and 1910 according to J. W. Glover, Original Death Registration States.

†The life tables for 1930 were prepared in the Statistical Bureau of the Metropolitan Life Insurance Company and relate to the total United States except Texas. "Urban" area includes municipalities of 10,000 inhabitants, or more, in 1930.

TABLE 2

Expectation of Life at Birth by States, in Relation to Industrialization. United States White Population, 1929-1931.

STATE	EXPECTATION OF LIFE AT BIRTH				PERCENT OF POPULATION AGES 10 AND OVER ENGAGED IN MANUFACTURING AND MECHANICAL INDUSTRIES‡
	YEARS		RANK		
	White* Males	White* Females	White* Males	White* Females	White Males
South Dakota†	64.38	66.81	1	1	9.2
Kansas	63.24	66.06	2	2	15.3
North Dakota	63.24	65.95	3	3	7.4
Iowa	63.04	65.90	4	4	15.4
Nebraska	62.92	65.82	5	5	13.1
Oklahoma	62.72	65.42	6	7	14.4
Minnesota	61.97	65.22	7	9	17.4
Wisconsin	61.51	64.60	8	11	26.3
Idaho	61.44	64.78	9	10	13.6
Washington	61.37	65.41	10	8	25.6
Oregon	61.17	65.45	11	6	23.5
Arkansas	60.43	63.58	12	15	10.7
Mississippi	60.34	63.28	13	20	10.9
New Hampshire	60.24	62.56	14	32	36.6
Indiana	60.04	62.79	15	26	28.0
Vermont	59.97	62.74	16	28	25.0
Michigan	59.80	62.76	17	27	35.2
Ohio	59.78	63.04	18	22	32.1
Wyoming	59.78	63.57	19	17	15.1
Connecticut	59.77	63.35	20	19	38.8
Missouri	59.76	63.38	21	18	20.3
Montana	59.40	64.26	22	12	13.7
Alabama	59.37	61.88	23	36	16.3
Kentucky	59.37	61.57	24	39	13.7
United States§	59.31	62.83	25	24	25.5
Massachusetts	59.29	62.63	26	31	36.1
Illinois	59.02	62.82	27	25	28.1
Florida	58.99	63.77	28	13	19.8
New Jersey	58.96	62.72	29	29	34.9
North Carolina	58.95	61.51	30	41	20.2
Georgia	58.92	62.65	31	30	16.9
Tennessee	58.76	61.96	32	35	16.1
Maine	58.70	61.85	33	37	29.6
Virginia	58.69	62.46	34	33	19.2
California	58.56	63.68	35	14	23.9
Louisiana	58.42	62.92	36	23	17.6
Utah	58.42	63.57	37	16	17.6
Delaware	58.25	62.18	38	34	29.4
West Virginia	58.14	61.28	39	45	18.8
Rhode Island	58.06	61.39	40	42	41.4
New York	57.84	61.72	41	38	30.1
Maryland	57.72	61.51	42	40	28.3
Pennsylvania	57.68	61.35	43	43	30.7
South Carolina	57.64	61.32	44	44	22.1
Nevada	55.77	63.13	45	21	18.1
Colorado	55.40	59.60	46	46	16.9
New Mexico	49.46	52.22	47	48	13.0
Arizona	48.08	55.15	48	47	18.4

*In the computation of the life tables, Mexicans were included among the whites.
†The computations for the expectation of life are based on deaths for 1930 only.
‡According to Census of April 1, 1930.
§Exclusive of South Dakota and Texas.

last column). Thus we find Rhode Island, New York and Pennsylvania, three of the most highly industrialized States of the country, ranking respectively 40th, 41st and 43d. Probably the best ranking State that might still be included among the fairly industrialized, Michigan, is as far down as 17th on the list.

This matter is capable of direct analytical test. The regular routine for obtaining a numerical measure of the interdependence of such quantities as we are here dealing with, that is to say, expectation of life, on the one hand, and degree of industrialization, on the other, is to compute the coefficient of correlation of these two series of numbers. This has been done with the result that they seem to bear out very well the results of our first casual observation on this subject. It is true that if the series is taken in its entirety, a very low coefficient of correlation is obtained, namely, $-.115 \pm .144$. There are, however, two States the figures for which are clearly out of line, namely, the States of New Mexico and Arizona. These show a very low expectation of life in spite of a low degree of industrialization. But these two States have a high percentage of Mexican population, whose mortality is markedly above that of other persons together with whom they have been classified as white. That this, indeed, is largely responsible for the low coefficient of correlation found, is immediately seen when this coefficient is once more computed, leaving out, this time, these two States. We then find a coefficient of correlation more than three times as high as before, namely, $-.359 \pm .130$. A correlation of this degree may be regarded as quite considerable. It is, for example, about equal to that between the stature of brothers and sisters. The negative sign, of course, merely indicates that the higher expectation of life is associated with the lower degree of industrialization, the two quantities varying in opposite directions.

An interesting sidelight is perhaps thrown on the relation between industrialization and expectation of life by the fact that the contrast, in this respect, between such a highly agricultural State as Kansas, on the one hand, and the highly industrialized State of New York, on the other, is greater in the case of males than of females, namely, 5.40 years, as compared with 4.34 years. The conjecture suggests itself that this difference reflects the greater and more direct exposure of men, as compared with women, to the hazards and hardships of industrial life.

There is the further consideration that the expectation of life in certain industrial States would be still lower —and the contrast between them and predominantly rural States still greater—were it not for the more advanced standards of sanitary and public health service which prevail in certain highly industrialized States, among which Massachusetts is an outstanding example.

Mortality Experience of the First Six Months of 1935

THE mortality among the 17 million Metropolitan Industrial policyholders in the first half of 1935 is gratifying not only because the general death rate is at the lowest point ever observed, but because of what has happened with respect to many individual causes of death.

The crude death rate for all causes combined was 9.10 per 1,000, or just under the previous minimum, 9.11, in 1932. The 1935 figure was 10.4 percent below the ten-year average for the January-June period during the decade 1920-1929 (when favorable business conditions prevailed and there was relatively little unemployment). Furthermore, the rate for the half-year just elapsed was 1.6 percent below the average for the six years, 1930-1935, a period of unfavorable business conditions and of unemployment.

Diseases like diphtheria, tuberculosis, diarrhea and enteritis, chronic nephritis and puerperal conditions, which registered new low mortality rates in 1934, bid fair to make still better records this year. The suicide rate, which had dropped in 1933 and again in 1934, shows a further decline of more than 6 percent. The combined death rate for the three principal degenerative diseases, heart disease, cerebral hemorrhage, and chronic nephritis, shows a reduction of 4.6 percent since last year. Other diseases to show more or less lower mortality than for the like part of 1934 were typhoid fever, measles, syphilis, and appendicitis.

Despite the 1935 increase in industrial activity, whereby more persons have been exposed to the hazards of various occupations, the accident death rate has declined slightly, and in the face of the fact that there are now more cars and trucks on the country's streets and highways, there have been fewer automobile fatalities than during the first half of last year.

The Negro Industrial policyholders, as well as the whites, have shared in the reduction in mortality so far this year.

The 1935 Record Has No Bad Spots

But perhaps the most remarkable feature of the record for the half-year is that not a single item can be said to be distinctly unfavorable. It is true that the influenza rate rose sharply in the early months as compared with last year; but last year's influenza figure, in turn, was the lowest since 1921, and the mortality in 1935 is still far below the average for influenza during the winter and spring seasons. There were very small rises in the crude death rates for cancer and diabetes, and an 8 percent increase in that for coronary disease. The recorded mortality rate for the last named has had a sharply rising tendency ever since vital statisticians began to make separate tabulations of deaths from this disease—in 1930. It is believed, however, that the

increase is largely fictitious and is due more to the growing tendency of physicians to report coronary disease on death certificates than to any actual abrupt rise in the incidence of and mortality from diseases of the coronary arteries.

Tuberculosis

The cumulative death rate for tuberculosis is 59.9 per 100,000, or 4.8 percent under the previous low of last year. The mortality rate for this disease for the first six months is always much higher than at the end of the year. If the same difference is observed this year as last, the final figure for 1935 will fall below 56 per 100,000. A rate of 56 would mark a drop of 43 percent in ten years and of 75 percent since 1911. If the observed downward trend of the tuberculosis death rate among Metropolitan Industrial policyholders, since 1925, is maintained until the year 1940, which we consider possible, a rate of 33.4 per 100,000 is indicated for that year. This would mean an even lower tuberculosis death rate for the general population of the country.

Communicable Diseases of Childhood

With the exception of scarlet fever each of the four principal communicable diseases of childhood registered a lower rate than for the first half of 1934. The figure for the four diseases combined is lower than ever before, with a single exception, and marks a drop of 55.7 percent in ten years.

Diabetes

The slow but persistent rise in diabetes mortality is still going on despite the ever increasing use of the insulin treatment. It is nevertheless true that diabetics live longer today than ever before, the average duration of life from onset to death being greater by five years than at the time insulin was discovered. The diabetes death rate has declined at all ages under 45; it is among older persons, women in particular, that the mortality has increased.

Decreased Mortality from Degenerative Diseases

The declines in the mortality rate of the three principal degenerative diseases, as compared with the figures for 1934, are 3.5 percent for heart disease, 4.7 percent for cerebral hemorrhage, and 7.5 percent for chronic nephritis. The slight downward tendency of the chronic nephritis death rate, observed from 1926 to 1933, was accentuated by a more decided drop in 1934; and this has been followed in 1935, to date, by a further decline of 7.5 percent.

Alcoholism

Thus far, the death rate from alcoholism among insured wage-earners has registered substantially no change since the repeal of the prohibition amendment. During the first six months of both 1933 and 1934, the death rate from this disease was 2.2 per 100,000; during the like period of 1935, it was 2.1 per 100,000. Cirrhosis of the liver shows a similar trend.

Death Rates per 100,000 Persons Exposed. First Six Months of 1933, 1934, and 1935 Compared. By Color for Principal Causes of Death. Metropolitan Life Insurance Company. Industrial Weekly Premium-Paying Business.*

Causes of Death	Death Rate per 100,000 Persons Exposed*					
	White			Colored		
	Jan.-June 1935	Jan.-June 1934	Jan.-June 1933	Jan.-June 1935	Jan.-June 1934	Jan.-June 1933
Total—All Causes	834.7	843.9	841.0	1492.9	1535.8	1523.6
Typhoid fever	.5	.8	.7	1.0	2.2	1.8
Measles	4.3	4.8	2.6	2.7	3.5	.9
Scarlet fever	4.1	3.6	3.9	1.0	1.1	1.2
Whooping cough	3.0	4.0	2.3	3.5	4.7	1.7
Diphtheria	2.1	2.2	2.5	.7	1.0	1.0
Influenza	19.6	13.6	29.2	48.8	36.3	60.7
Meningococcus meningitis	2.2	1.2	1.4	4.8	1.0	2.3
Tuberculosis (all forms)	46.1	50.4	53.9	166.5	161.0	181.7
Tuberculosis of resp'y system	41.7	44.6	48.1	148.9	140.9	161.6
Syphilis, locomotor ataxia and general paralysis of the insane	7.4	8.0	7.4	46.3	49.3	49.7
Cancer (all forms)	95.3	94.9	91.9	104.7	102.4	96.2
Diabetes mellitus	26.8	26.1	25.4	27.1	29.5	29.5
Alcoholism	2.0	1.9	2.2	3.6	4.6	2.3
Cerebral hemorrhage; apoplexy	57.6	60.5	60.5	123.7	130.1	128.2
Diseases of heart†	160.8	165.7	161.7	273.7	292.6	288.6
Diseases of the coronary arteries and angina pectoris	34.5	31.7	25.3	26.5	26.2	23.4
Pneumonia (all forms)	81.4	79.8	73.0	160.9	166.1	132.1
Bronchopneumonia	32.6	31.6	29.9	49.2	50.3	40.0
Lobar and undefined	48.7	48.3	43.0	111.7	115.8	92.1
Diarrhea and enteritis	6.3	7.3	7.8	7.6	9.3	7.5
Appendicitis	11.2	12.5	13.1	16.4	14.3	14.0
Cirrhosis of the liver	7.4	8.1	7.5	8.3	7.9	8.7
Acute nephritis	2.3	2.6	2.4	8.8	9.3	10.7
Chronic nephritis (Bright's disease)	56.6	61.3	62.2	129.5	141.0	143.1
Puerperal state—Total	8.5	9.0	9.6	15.4	14.9	15.5
Total external causes	63.5	64.6	63.1	95.2	100.5	101.2
Suicides	9.5	10.1	10.4	7.0	7.1	9.0
Homicides	2.8	2.8	3.1	28.0	28.0	29.5
Accidents—Total	51.2	51.7	49.5	60.2	65.4	62.7
Automobile accidents	18.2	18.7	17.1	19.4	19.9	18.7
All other diseases and conditions	131.4	129.3	131.3	216.1	227.2	221.3

*The rates for 1935 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Excludes pericarditis, acute endocarditis and acute myocarditis.

Occupational Fatalities Rose in 1934

As was to be expected, an increase in the number of fatal accidental injuries arising out of, or in the course of employment accompanied the improvement in the employment situation in 1934. Present estimates place the number of such fatalities at no fewer than 16,000 last year, which is approximately 1,500 more than occurred in 1933, or an estimated increase of 10.3 percent. Among adult white male Industrial policyholders of the Metropolitan Life Insurance Co., most of whom are employed in industrial occupations, the death rate from occupational fatalities increased at an even greater rate, 11.3 percent. This rise in the death rate among insured persons marks the first upturn in the trend of the occupational accidental death rates in the entire depression period. From the relatively high figure of 35.9 deaths per 100,000 policyholders in 1929, the latest year of fairly high business activity, the death rate dropped 40.9 percent, to the low figure of 21.2 deaths per 100,000 in 1933. The 1934 death rate exceeded not only the 1933 rate, but that for 1932. The accompanying table shows the death rates for occupational accidents by general and specific means of injury per 100,000 adult white male policyholders for each year of the period 1929 to 1934.

An increased death rate was recorded for each of the principal means of injury in 1934 as compared

DEATH RATES FROM OCCUPATIONAL ACCIDENTS

By General and Specific Means of Injury per 100,000 White Males at Ages 15 and Over. Metropolitan Life Insurance Company, Industrial Department, Weekly Premium-Paying Business, 1929-1934.

Means of Injury	Death Rates per 100,000						Percent Increase or Decline 1934 Since 1933
	1934	1933	1932	1931	1930	1929	
All Occupational Accidents	23.6	21.2	22.9	27.2	31.0	35.9	11.3
Accidental burns (conflagration excepted)	.9	1.3	1.0	1.0	1.7	1.1	-30.8
Accidental absorption of irrespirable gases	.5	.4	.4	.4	.3	.5	25.0
Accidental drowning	1.0	.7	1.0	1.3	1.5	1.7	42.9
Traumatism by fall	3.7	3.1	3.9	4.8	5.4	5.1	19.4
Traumatism in mines and quarries	2.1	2.8	2.7	3.0	3.5	4.7	-25.0
Traumatism by machines	2.6	2.2	2.4	3.0	3.5	4.5	18.2
Steam railroad accidents	2.0	1.8	1.6	1.9	2.6	4.9	11.1
Street railway accidents	.4	.2	.3	.5	.4	.3	100.0
Automobile accidents*	4.5	3.7	3.6	4.6	3.8	3.8	21.6
Electricity (lightning excepted)	.8	.5	.9	1.5	1.9	2.4	60.0
All other means	5.1	4.5	5.1	5.2	6.4	6.9	13.3

*Exclusive of deaths in collisions between automobiles and railroad trains or engines, and between automobiles and street cars.

with 1933, with the exception of accidental burns and traumatism in mines and quarries.

One particularly disturbing feature of the 1934 record was a rise of 21.6 percent in occupational automobile fatalities exclusive of both collisions between automobiles and railroad trains or engines, and collisions between street cars and automobiles. The death rate of 4.5 per 100,000 for occupational automobile fatalities in 1934 has been exceeded only once in the Company's experience covering a period of 24 years. The highest rate ever recorded for accidents of this kind was in 1931 when the rate was 4.6 per 100,000. For the past two years, the automobile has been the leading means of occupational injury.

The greatest 1934 increase for any of the accident causes was for street railway accidents, which, however, involve relatively few deaths. Among the more important causes, traumatism by falls rose 19.4 percent, traumatism by machines, 18.2 percent, and by railroad accidents, 11.1 percent.

Health Record for June 1935

THE mortality rate of the Metropolitan Life Insurance Company's Industrial policyholders in June (8.1 per 1,000) was well below the average for this month, although very slightly higher than that for June 1934.

The June death rates recorded this year for several causes of death are far removed from the mortalities expected at this time of the year. For example, the June 1935 death rates for diarrheal diseases (7.3 per 100,000); puerperal causes (7.9); and accidents (53.9) are lower than ever before recorded during June. Furthermore, the rate for automobile fatalities (17.6 per 100,000) is the lowest June figure in seven years for this particular cause. On the other hand, the pneumonia mortality rate of 56.3 per 100,000 is the highest recorded for any June during the current decade.

The death rate in the general population of the large cities of the United States during June 1935 was 10.9 per 1,000 estimated population. This may be compared with rates of 11.9 in May 1935, and 10.7 in June 1934. Comparison with the morbidity data for May 1935 shows increased prevalence, in June, of poliomyelitis and typhoid fever together with fewer cases of diphtheria, influenza, measles, scarlet fever and smallpox. As compared with June 1934 there was more sickness from influenza, measles, scarlet fever and smallpox with lower morbidity from diphtheria, poliomyelitis and typhoid fever.

Poliomyelitis cases more than quadrupled during the month of June, as 454 cases were reported from 42 States as against 102 in May. The increase was due, largely, to outbreaks which occurred in two widely separated areas, namely, North Carolina and California.

There are already indications that the serious North Carolina epidemic is spreading into Virginia as 40 cases were reported from this State during the last two weeks of June. In California, 94 cases were reported in June as against 19 in May.

Reports from 43 States show only 595 cases of smallpox in June as compared with 701 in May. Well over half of the June cases occurred in three States, namely, Nebraska, Kansas and Washington.

Special public health activities reported during June include the following: A new state tuberculosis sanatorium is to be erected at Gaylord, Michigan, with funds derived from malt taxes. The maiden voyage of the St. John's Guild hospital ship, recently built to provide free excursion trips for mothers and children of the poorer districts of New York City, was made on July 1st. The ship is provided with clinics where formula milk is prepared for bottle babies, and baths and showers are provided for the children. According to newspaper reports more than 100 hospitals in New York City had joined in the three-cents-a-day hospital movement sponsored by the Associated Hospital Service. According to the plan, each subscriber is entitled to 21 days of hospital care in a semi-private room without further expenditure. The New York City Department of Health is cooperating with the United States Public Health Service in making a survey of the incidence of syphilis during the month of June. It is reported that the study will be held confidential, being intended primarily for statistical purposes rather than for checking against previous reports submitted by physicians and clinics.

A nation-wide campaign has been launched by the National Health Council to stimulate interest in community health on the part of citizens and taxpayers. The campaign will seek to coordinate the activities of health and social agencies. A survey of tuberculosis cases reported in Shawnee County, Kansas, in the past ten years has recently been completed. It was a cooperative program of the Topeka Tuberculosis Association, the Kansas Tuberculosis and Health Association and the Division of Tuberculosis of the Kansas State Board of Health. It was estimated that the earning capacity of the County was lowered nearly $900,000 in ten years as the result of 406 fatal cases.

Hearing tests, made by the Emergency Relief Bureau, among more than 600,000 New York City school children, revealed that in approximately 10 percent there was hearing impairment in one or both ears. In 4,000 cases the affliction was so serious that the children were given lessons in lip-reading. A recent test of the accuracy of birth registration in Wisconsin cities showed 98 percent completeness over a period of 13 years. In one city, Janesville, the registration was found to be 100 percent complete. The very worst record for any city was 96.8 percent.

The following table shows the mortality among Industrial policyholders for June 1935; May 1935, and June 1934, together with the cumulative rates for the first six months of each year.

METROPOLITAN LIFE INSURANCE COMPANY

Death Rates per 100,000 for Principal Causes. Weekly Premium-Paying Business in Industrial Department. All Ages (Annual Basis).*

MONTHS OF JUNE 1935; MAY 1935, AND JUNE 1934.

CAUSES OF DEATH	ANNUAL RATE PER 100,000 LIVES EXPOSED*				
	June 1935	May 1935	June 1934	Cumulative January-June	
				1935	1934
TOTAL—ALL CAUSES	806.3	880.9	796.7	910.3	922.0
Typhoid fever	.8	.6	.8	.6	.9
Measles	4.9	5.8	3.4	4.1	4.7
Scarlet fever	3.3	4.3	2.6	3.7	3.3
Whooping cough	1.6	3.6	4.3	3.1	4.1
Diphtheria	.7	1.3	1.6	1.9	2.0
Influenza	6.4	12.5	5.3	22.9	16.1
Tuberculosis (all forms)	55.2	58.7	59.9	59.9	62.9
Tuberculosis of respiratory system	49.7	51.9	52.5	54.0	55.5
Syphilis, locomotor ataxia and general paralysis of the insane	12.2	11.0	12.0	11.8	12.7
Cancer (all forms)	94.9	90.5	91.5	96.4	95.7
Diabetes mellitus	24.0	23.4	21.9	26.8	26.5
Cerebral hemorrhage; apoplexy	55.9	63.3	58.1	65.1	68.3
Diseases of heart†	147.0	164.4	149.5	173.7	180.0
Diseases of the coronary arteries and angina pectoris	27.3	30.7	27.1	33.6	31.1
Pneumonia (all forms)	56.3	86.9	50.6	90.5	89.6
Diarrhea and enteritis	7.3	6.8	9.6	6.5	7.5
Appendicitis	11.9	11.8	13.8	11.8	12.7
Chronic nephritis (Bright's disease)	56.8	62.3	62.1	65.0	70.3
Puerperal state—Total	7.9	7.8	8.5	9.3	9.7
Suicides	10.1	10.1	9.1	9.2	9.8
Homicides	5.6	5.0	4.9	5.7	5.6
Accidents—Total	53.9	50.9	56.9	52.2	53.3
Automobile accidents	17.6	19.7	19.0	18.4	18.8
All other diseases and conditions	162.0	169.2	143.3	156.3	155.2

*The rates for 1935 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Excludes pericarditis, acute endocarditis, and acute myocarditis.

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STATISTICAL BULLETIN,
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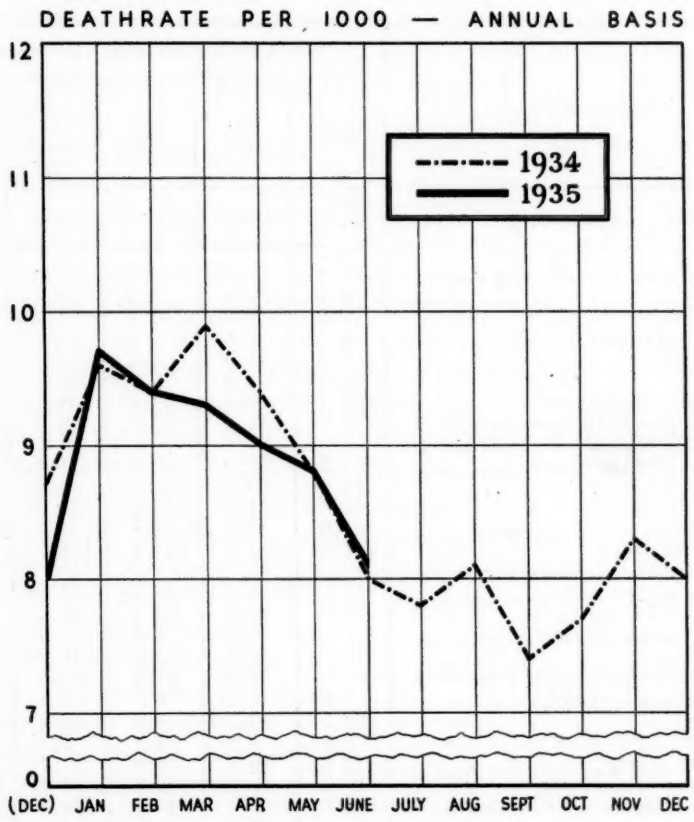
DEATHRATES FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE CO. – INDUSTRIAL DEPT.
WEEKLY PREMIUM PAYING BUSINESS — TOTAL PERSONS



1934	9.6	9.4	9.9	9.4	8.8	8.0	7.8	8.1	7.4	7.7	8.3	8.0
1935*	9.7	9.4	9.3	9.0	8.8	8.1						

** Rates for 1935 are provisional*

METROPOLITAN LIFE INSURANCE COMPANY PRESS
NEW YORK, U.S.A.
78435